

↓
PATENT
Atty. Dkt. No. VIVOR1420-1
(073799-1107)

REMARKS

The present claimed invention is directed to microcapsules for the encapsulation of biologically active materials. These microcapsules are composed of at least one biocompatible gellable material which has a core containing at least one cell aggregate therein and is not ionically crosslinked; and an outer layer which is covalently crosslinked, polyionically crosslinked or both covalently crosslinked and polyionically crosslinked but is not ionically crosslinked. These capsules permit enhanced migration and aggregation of the biologically active material within the capsule and enhanced control over the release rates of the biologically active material, while decreasing the risk of biomineralization due to ions required for ionic crosslinking and enabling the biologically active material contained within the capsule to retain a significant proportion of the functionality of the unencapsulated biologically active material.

Claim 53 is amended herein. No new matter has been added by the subject amendments as basis for this amendment is found throughout the application (e.g., page 17, lines 22-28). Claims 1-6, 39-52 and 54-64 were withdrawn from consideration. Applicant expressly reserves the right to pursue non-elected subject matter in one or more applications that may claim priority hereto. Claims 1-6 and 39-64 remain pending in this application with only claim 53 presently under active prosecution.

REJECTION OF CLAIM 53 UNDER 35 U.S.C. §103(a)

The rejection of claim 53 under 35 U.S.C. §103(a) as allegedly being obvious over Dionne et al (U.S. Patent No. 5,874,099) is respectfully traversed.

Instant claim 53

Applicant's invention, as defined by claim 53, distinguishes over Dionne et al by requiring a microcapsule which contains:

at least one cell aggregate inside a core (which is not ionically crosslinked); and

↓

PATENT
Atty. Dkt. No. VIVOR1420-1
(073799-1107)

an outer layer (which is covalently crosslinked, polyionically crosslinked or is both covalently crosslinked and polyionically crosslinked, but not ionically crosslinked).

The teachings of the reference and the differences between instant claim 53

Dionne et al does not teach or suggest such a microcapsule, i.e., a microcapsule which contains:

at least one cell aggregate inside a core (which is not ionically crosslinked); and

an outer layer (which is covalently crosslinked, polyionically crosslinked or is both covalently crosslinked and polyionically crosslinked, but is not ionically crosslinked), as required by instant claim 53.

The reference does not teach or suggest that the core and the outer layer not be ionically crosslinked, as required by instant claim 53. Nor does the reference provide any motivation to modify the vehicle taught therein to arrive at the instantly claimed microcapsule. Absent a teaching or suggestion in the reference, one of skill in the art would not have been motivated to modify the teachings of the reference to arrive at the instantly claimed microcapsule.

It is respectfully submitted that a prima facie case of obviousness has not been established because the reference does not teach or suggest, nor does it provide any motivation for the modifications proposed by the Examiner. Reconsideration and withdrawal of this rejection are respectfully requested.

SPECIFICATION

As amended herein, the specification includes the necessary reference to the prior parent application and its current status following the title of the invention, as required under former 37 CFR 1.60.

In view of the foregoing amendments and remarks, it is respectfully submitted that the pending claim is in condition for allowance. An early notice to that effect is earnestly solicited. Should any matters remain outstanding, the Examiner is encouraged to contact


↓
PATENT
Atty. Dkt. No. VIVOR1420-1
(073799-1107)

the undersigned at the telephone number listed below so that they may be resolved
without the need for an additional action.

Respectfully submitted,

Date: July 11, 2003

By



FOLEY & LARDNER
Customer Number: 30542



30542

PATENT TRADEMARK OFFICE

Telephone: (858) 847-6711

Facsimile: (858) 792-6773

Stephen E. Reiter
Attorney for Applicant
Registration No. 31,192